

**POSITION DUTY STATEMENT**

PM-0924 (REV 7/2014)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
Transportation Engineer Range A B C & D	Design III, Project Development, Hydraulics Branch	
WORKING TITLE	POSITION NUMBER	EFFECTIVE DATE
Design III, Project Development, Hydraulics Branch	931-203-3135-XXX	

As a valued member of the Caltrans team, you make it possible for the Department to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability. Caltrans is a performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation and teamwork.

**GENERAL STATEMENT:**

Under the direction of a Senior Transportation Engineer, incumbent is responsible for the following: Field work to gather hydraulic data, roadway and cross drainage design, review of encroachment permits, IGR/CEQA and local development plans, embankment and bridge protection design, floodplain analysis, and hydrology development. Responsible for making engineering decisions on a daily basis necessary to solve hydrologic and hydraulic engineering problems. Must be able to effectively analyze a wide variety of hydrologic and hydraulic engineering problems and develop practical solutions. Must have the experience to perform the duties described above or be capable of quickly learning how to do so.

**TYPICAL DUTIES:**

Percentage		Job Description
Essential (E)/Marginal (M) <sup>1</sup>		
65%	E	Assists in or is in responsible charge of the design of drainage features associated with highway construction projects. Review or design of complex facilities. Field work to gather hydraulic/hydrologic data. Roadway, cross drainage and open channel design/analysis. Hydrology development. Floodplain analysis. Preparation and/or review of Drainage Reports and Conceptual SWPPP. May act as Project Engineer in responsible charge of PS&E.
10%	E	Develop and maintain expertise in applicable software (including Microstation and CAICE), engineering methods, and policy & procedures (including the Caltrans Storm Water Management Plan). Maintains accurate inventory of culvert, flooding, and other hydrographic records.
5%	E	Reviews plans and scoping documents for constructability/hydraulic issues.
5%	E	Conducts field investigations of drainage structures during storms. May serve on field reconnaissance teams for Major Damage Restoration (HA23).
5%	E	Construction support (CCO evaluation, design).
5%	E	Training entry-level engineers in hydraulic engineering. Attend training courses, provide formal or informal training to others, participate in internal and external teams and committees, and attend meetings such as safety meetings, status of project meetings, and project development team meetings
5%	M	Conducts drainage studies and prepares recommendations for issues arising from public complaints, encroachment permit applications, IGR/CEQA documents, tort liability (District Claims Officer or HQ Legal), Maintenance, and other Caltrans functional units.

<sup>1</sup>ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

**SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS**

This position does not supervise; however, the incumbent may be given the authority to act as a leadperson in absence of the supervisor for a short duration. Leadperson's authority is limited to the work unit and is limited to reviewing work, assigning tasks within a work assignment, training employees, providing input on employee performance, preparing recommendations relating to work assignments, and other duties that may be authorized by the supervisor.

**KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS**

Knowledge of:

- Must be able to effectively analyze a wide variety of hydrologic and hydraulic engineering problems and develop practical solutions.
- Must be able to operate engineering instruments to determine existing grades and flow patterns.
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be able to write effective reports and correspondence.

- Department and work unit policies and procedures including but not limited to sexual harassment, violence at the workplace, discrimination, ethics, and state equipment usage.

Ability to:

- Effectively communicate in English both verbally and in writing.
- Use and/or calibrate various equipment including but not limited to survey instruments, basic video equipment, drafting tools, fax machines, and copiers.
- Perform basic mathematical calculations using calculators and computer software.
- Use CADD systems and software to delineate drawings and/or make CADD measurements.
- Use personal computers both on and off a network and general office software including, but not limited to Microsoft Word, Microsoft Excel, Microsoft Power Point, Microsoft Access, and Microsoft Windows.

Analytically:

- Review field or office work environments for potentially unsafe conditions.
- Check for accuracy in the incumbent's own work or the work of others.
- Develop, review, and recommend alternatives for projects or issues.

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### RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Responsible for making engineering decisions on a daily basis which are necessary to solve hydrologic and hydraulic engineering problems. Failure to analyze a projects drainage and hydrology correctly could result in an unnecessary expenditure of funds to correct mistakes, an inferior or unsafe public facility or a facility that requires excessive maintenance exposing personnel to unnecessary danger.

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### PUBLIC AND INTERNAL CONTACTS

Work involves contact with representatives of other sections within Caltrans, other agencies, industry representatives, engineering consultants, developers, and private individuals.

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### PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Physical Requirements:

- Sit for long periods of time using a keyboard, mouse, and video display terminal. Other physical requirements include, but are not limited to walking, climbing stairs, lifting/carrying objects without causing injury (i.e. books, binders, plan sheets, box(s) of plotter or printer paper, etc.), twisting, stretching, bending, stooping, and kneeling.
- Travel to and from project sites or meeting locations.

Mental Requirements:

- Grasp the essence of new information and master new technical knowledge.
- Simultaneously work on several work assignments and/or deadlines.
- Work within a noisy and occasionally distracting work environment.
- Evaluate and understand critical calculations, data and other material that may require long periods of mental concentration.

Emotional Requirements:

- Deal with all contacts in a calm and respectful manner.
- Resolve emotionally charged issues reasonably and diplomatically.
- Develop and maintain cooperative working relationships with all contacts.
- Receptive to change, new information, and new situations.
- Overtime may be required and vacations may be restricted during peak times and fiscal year-end closing.

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### WORK ENVIRONMENT

The majority of the work performed will be in a climate-controlled office environment and within a work cubical or work area under artificial lighting.

The incumbent may be asked to work outdoors conducting field reviews or collecting data. The incumbent would be exposed to loud noise, dust/dirt, uneven surfaces, airborne particles, extreme weather, great heights, the traveling public, and numerous environmental hazards including but not limited to snakes, bees, mosquitoes, ticks, scorpions, dogs, and poison oak.

Travel, one-day or overnight trips, may occasionally be required.

The typical office working hours are between 7:30 a.m. and 4:15 p.m. Monday thru Friday, and 40 hours per week.

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I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

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EMPLOYEE (Print)

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EMPLOYEE (Signature)

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DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

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SUPERVISOR (Print)

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SUPERVISOR (Signature)

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DATE